

MANUFACTURED HOME FIRES

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February 2005

Executive Summary

In 2002, an estimated 17,200 structure fires in manufactured homes were reported in the U.S., with associated losses of 210 civilian deaths, 510 civilian injuries, and \$134 million in direct property damage.

Fires and associated losses have declined by one-third to one-half since 1980 if direct property damage is adjusted for inflation. The rate of decline has been comparable to that for other types of homes (i.e., dwellings, duplexes, apartments).

Manufactured homes built after the introduction of the HUD standards have lower rates of civilian deaths per reported fire than those built before the HUD standards were introduced. The death rate was 54% lower in 1994-1998. From 1999 on, the reporting of unit age has become so rare that statistics are not reliable.

Manufactured homes have a higher rate of civilian deaths per hundred reported fires than do other dwellings, but as of 1999-2002, they have nearly the same risk of fire death relative to the number of occupied units.

Post-standard manufactured homes are more likely to have fires confined to room of origin, and this correlates with provisions of the standards that are designed to achieve such confinement. Sections 3280.203 – 3280.206 of the HUD standards provide requirements that are intended to slow or limit the spread of a fire by such means as:

- flame spread requirements for interior finish materials on
 - exposed walls,
 - columns,
 - partitions, and
 - ceilings;
- more targeted flame spread requirements for
 - wall and floor coverings near central heating units or water heaters,
 - interior finishes exposed to cooking ranges,
 - kitchen cabinet surfaces, and
 - plastic bathroom fixtures; and
- firestopping requirements.

The percentage of fires confined to room of origin was 15 percentage points higher for post-standard manufactured homes, compared to pre-standard manufactured homes, in 1994-1998 and 9 percentage points higher in 1999-2002 (excluding confined fires).

Smoke alarms are associated with a substantially lower civilian death rate per 100 fires in post-standard manufactured homes and, less consistently, in pre-standard manufactured homes.

Smoke alarms reportedly are missing in a large share of all post-standard manufactured home fires where smoke alarm status was reported (45% in 1999-2002). Because all post-standard manufactured homes are required to be sold with smoke alarms installed, this implies a disturbingly high rate of smoke alarm removal by occupants.

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